

CSC 406 Systems II  
2013-2014 Fall Quarter  
Wednesdays 5:45PM – 9:00PM  
Lewis 1110  
<http://d2l.depaul.edu/>

Dr. Will Marrero  
CDM 737  
312-362-5065  
[wmarrero@cdm.depaul.edu](mailto:wmarrero@cdm.depaul.edu)  
Mon. 1:00-2:30    Weds: 1:00-2:00, 5:00-5:30

## Summary Of Course

This course covers the concepts underlying all computer systems and how they affect the correctness, performance, and utility of application programming. In particular, we will cover exceptional control flow (interrupts, faults, traps, signals), memory (caches, virtual memory, dynamic memory allocation), system-level I/O, network programming, and as time allows concurrent programming.

## Prerequisites

The prerequisites for this course are CSC406 (Systems I) and CSC402 (Data Structures I). I will assume you had enough exposure to C in CSC406 that you understand how pointers work as well as how to write, compile and debug C programs in a Linux environment. From CSC402, you must know how linked lists are implemented and used.

## Required Textbooks

*Computer Systems: A Programmer's Perspective, 2nd Edition*. Bryant & O'Hallaron, Prentice Hall/Pearson, 2011. ISBN: 978-0136108047

*Systems Programming with C and Unix*. Hoover, Addison-Wesley/Pearson, 2009. ISBN: 978-0136067122

## Grading Policy

Lab Projects	50%
Midterm Exam	25%
Final Exam	25%

Overall grades will be assigned as follows:

93-100	A
90-92	A-
87-89	B+

83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
60-66	D
0-59	F

## Labs

The heart of this course are the three labs that students will be doing. Each of these labs require a significant amount of time and work to complete. They really are projects and not homeworks. Students are urged to start early. Note that late submissions will not be accepted so make sure to submit whatever you have before the deadline. You can always resubmit if you make more progress before the deadline. Make sure to run your partial solutions against the test cases as they will be used to grade your submissions.

The labs do take a significant amount of time to finish, but students can complete each of the labs on their own. However, some students work better in a group, so students are allowed to work in a team with at most one other student. Note, however, that usually there is no easy or obvious way to split the work and so working together really means working together. Students are expected to solve the problems on their own (or with their 1 team member). Searching for answers to the problems online is considered cheating and will result in an F for the course. You are certainly welcome and encouraged to seek help with how to use the various tools, but not on how to solve the problems. If you are ever unsure about whether some reference/resource is allowed, please just ask.

## Exams

The midterm exam is on Wednesday, October 16, at the usual class time. Online students must take the midterm exam either on October 16 or October 17. The final exam is on Wednesday, November 20, at the usual class time and in the usual classroom. Online students must take the final exam on either November 20 or November 21. Clear your schedule now. If you know you have a conflict, you must let the instructor know by the second class (September 18) and the conflict must be documented.

In class students: Both exams will take place in the regular classroom.

Online students: Make sure to register online for the exam on as soon as possible. If you are not a local student, you must arrange for a proctor. All online students should be familiar with their rights and responsibilities as outlined here:

<http://blogs.cti.depaul.edu/colwiki/Wiki%20Pages/Course%20OnLine%20Guide%20For%20Students.aspx>

Students may bring a single 8.5" by 11" sheet of notes (both sides) to the exams, but no other resources will be allowed. The sheet of notes must be turned in with the exam and will not be returned. Please make a copy for yourself before bringing it to the exam.

### **Warning to online students**

In the past, I have had remote students who thought they were registered for the online section. When it came time to take the exams, administration would not allow them to take the exam remotely and so they received a 0 for the exams. Make sure this does NOT happen to you! You do not need to register now, but you should at least verify that you can register for the midterm and final exams. If you cannot, you are in the "live" section and you must take the exam in class.

### **Course Server and Required Software**

All work must be done on the Unix server for the course. This will require you to have some kind of SSH client as well as an FTP app that uses SSH. In the classroom, I will be using PuTTY. You can find PuTTY at <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html> or from the on D2L. If you want to be able to transfer files between the server and your machine, you will also need PSCP. Alternatively you can do a web search for a copy of the old SSH Client version 3.2.9. SSH itself doesn't host it anymore, but there are bound to be copies out there.

The hostname of the server is `wmarrerowww.cstcis.cti.depaul.edu`. Your username is the first letter of your first name followed by at most the first 7 letters of your last name. Your password is your DePaul student ID including leading zeroes if there are any. Please change your password as soon as you login by typing in "passwd" (without the quotes) and then following the instructions.

Accounts will be generated by the class roster AFTER the first day of class. If you cannot login within 3 days of the first day of class, contact the instructor ASAP, especially if you registered late for the course. You may not have an account yet.

I assume you are familiar with the UNIX environment and can edit/compile/debug C programs in a terminal window (Emacs/vi gcc, gdb, etc.). See the reference documents on D2L as well as the Hoover text for some help if you are unfamiliar with these tools or with the UNIX command line interface.

### **Online Teaching Evaluation**

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching.

The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect at <http://campusconnect.depaul.edu>

## **Email**

Email is the primary means of communication between faculty and students enrolled in this course outside of class time. Students should be sure their email listed under "demographic information" at <http://campusconnect.depaul.edu> is correct.

## **Academic Integrity Policy**

This course will be subject to the faculty council rules on the Academic Integrity Policy. More information can be found at <http://academicintegrity.depaul.edu>.

## **Plagiarism**

The university and school policy on plagiarism can be summarized as follows: Students in this course, as well as all other courses in which independent research or writing play a vital part in the course requirements, should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work a report, examination paper, computer file, lab report, or other assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor. Please see the separate plagiarism handout for some guidelines about what constitutes plagiarism in this class.

## **Incomplete**

An incomplete grade is given only for an exceptional reason such as a death in the family, a serious illness, etc. Any such reason must be documented. Any incomplete request must be made at least two weeks before the final, and approved by the Dean of the College of Computing and Digital Media. Any consequences resulting from a poor grade for the course will not be considered as valid reasons for such a request.

## **Resources for Students with Disabilities**

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you contact the Center for Students with Disabilities (CSD) at:

Student Center, LPC, Suite #370

Phone number: (773)325.1677

Fax: (773)325.3720

TTY: (773)325.7296